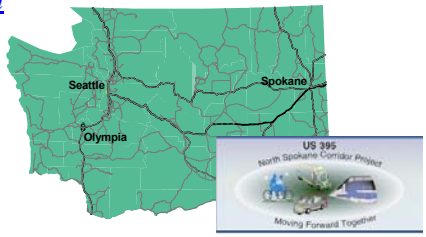
2003 Value Engineering Award Project Overview

City/State where project is located: *Spokane, Washington*
Name of project: *I-90 and Collector-Distributor System - US 395 North Spokane Corridor*
Agency Nominated: *Washington State Department of Transportation – Eastern Region*
Contact Person: *Mike Gribner, WSDOT – (509) 324-6095 voice, (509) 324-6099 fax*

Washington State Department of Transportation



Category of Award Nomination

Type	Most Value Added	Most Innovative
Construction		
Engineering	☑	☑
Process Improvement		☑

Brief Project Description – Overall North Spokane Corridor

The North Spokane Corridor (NSC) Project is located in the Northeast quadrant of the City of Spokane, extending north into Spokane County. This 10.4 mile multi-modal transportation facility connects directly to I-90 just west of the Thor/Freya Interchange, then progresses north to connect with US 395 near Wandermere. The NSC route forms a seamless connection among three highways of national significance; Interstate 90 (I-90) on the south, together with US 2 and US 395 on the North. The NSC will ultimately provide a 60 mile per hour, fully controlled access highway between I-90 and Wandermere. The total overall estimated cost for this project is approximately $1.4 billion. This Value Engineering study involved the connection of the North Spokane Corridor to I-90 and the redesign of a three-mile section of I-90.

Brief Proposal Description – I-90 and Collector-Distributor System

Due to the complexity of the project, the number of expertise groups involved (Federal, State, City, County, Businesses, Neighborhoods, etc.), and the overall time commitment that it would take to process the multitude of design alternatives generated, we have developed a multi-tiered public involvement process that resulted in an extended VE study (24 months) to help guide our efforts and stay connected with key stakeholders throughout the project development process.

CATEGORY: ENGINEERING - MOST VALUE ADDED

1. **Total Dollar Amount Saved:** *$182.6 Million (does not include life cycle costs)*
2. **Percent of the total project saved:** *31%*
   Project cost: *$586 Million (2003 dollars for Phase 2, I-90 Section only)*
3. **Increased value of the project:** *reduced the overall project cost and improved traffic operations*
4. **Annual Savings (Operations, maintenance, etc.):** *Life cycle cost analysis has not been done for this project, but there would be a user cost savings as a result of the increased level of service*
5. **Reduction of schedule:** *reduced construction time for the ramps built on fill instead of structures*

CATEGORY: ENGINEERING - MOST INNOVATIVE / PROCESS IMPROVEMENT - MOST INNOVATIVE

1. **Use of new technology:** *design visualizations, scale model of project with contours*
2. **"Out of the Box" thinking:** *Design Advisory Group, extended VE study (24 months), extensive public input process throughout the VE study*
3. **Degree the final project differs from the original design:** *new profiles for the C-D (lowered approximately 50' from original design) & I-90 (lowered approx. 25'), revised Altamont crossing from the current crossing (under I-90) to a new crossing over I-90, added an eastbound I-90 to northbound NSC directional ramp to improve traffic operations, new Liberty Park Interchange design including a revised C-D off-ramp location, which reduces impacts to adjacent city park, & utilized many of the existing interchange ramp structures to reduce the interchange cost*
4. **Improved operations, safety and/or constructibility:** *increased level of service and improved safety along I-90, reduced construction time for the NSC interchange ramps built on fills (approximately 18 months), instead of on structures (see attached additional information regarding Recommendation #3), increase pedestrian safety by taking Altamont Street over I-90 (better pedestrian visibility)*
5. **The increased value of the project:** *increased acceptability to the public because of the opportunity provided for design input throughout the extended VE study process*

Scale Model

Design Visualizations

Cost Savings

VE Team Recommendation	Response	Estimated Cost ($) or Savings (In millions of dollars)
1	Accept	$55.2
2	Accept	($4.8)
3	Accept	$52
4	Accept	$79.0 (Qwest building ROW cost; Your Place Park Replacement)
5	Accept	$2.2
6	Accept	($1.0 for ROW)
Total Savings		$182.6

Washington State Department of Transportation